

Report

Phase II Environmental Site Assessment (ESA)

February 7, 2012

NTH Project No. 74-090095-18

NTH Consultants, Ltd.
1430 Monroe Avenue
Suite 180
Grand Rapids, MI 49505





Table of Contents

1.0	INTRODUCTION	1
2.0	FIELD INVESTIGATION AND SAMPLING	2
	2.1 Subsurface Investigation	2
	2.2 Observed Soil Conditions	3
	2.3 Laboratory Testing	3
3.0	EVALUATION OF ANALYTICAL DATA	4
	3.1 Soil Analytical Data	5
4.0	CONCLUSIONS	6
5.0	LIMITATIONS	6

APPENDICES

APPENDIX A – FIGURES

Figure 1	Property Location Map
Figure 2	Property Layout with Boring Locations
Figure 3	Log of Geoprosbes and Hand Augers

APPENDIX B – TABLES

Table No. 1	Summary of Soil Analytical Data
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APPENDIX C – ANALYTICAL DATA REPORTS

Laboratory Analytical Data

Chain of Custody



NTH Consultants, Ltd.
1430 Monroe Avenue
Suite 180
Grand Rapids, MI 49505

1.0 INTRODUCTION

NTH Consultants, Ltd. (NTH) has prepared this Phase II Environmental Site Assessment (ESA) Report on the property, located at 863 Seventh Street NW: Stocking Elementary School (the Property) in the City of Grand Rapids, Michigan. The Phase II ESA was conducted on behalf of the GR School Lofts, LLC and the City of Grand Rapids. The Phase II ESA was performed under a Brownfield Assessment Grant the City of Grand Rapids received from the U.S. Environmental Protection Agency.

The approximate location of the Property is shown on Figure No. 1 "Property Location Map", in Appendix A. The Property is approximately 3.7 acres in size. The layout of the Property is shown on Figure No. 2, "Property Layout with Boring Locations."

Prior to the Phase II ESA, NTH performed a Phase I ESA study on the Property. According to the Phase I ESA Report, the following evidence of recognized environmental conditions (RECs) were associated with the Property:

- Based on the Sanborn Maps, former residential dwellings were located at the Property. No structural or demolition records for the former buildings could be obtained from reasonably ascertainable historical records. It is unknown if the former buildings had basements. If basements were present, then the environmental nature and origin of the fill soil used to backfill the basement excavations is unknown.

Due to the above RECs, a Phase II ESA study was implemented by NTH to evaluate potential impacts to the Property.

2.0 FIELD INVESTIGATION AND SAMPLING

The objective of the Phase II ESA was to evaluate whether soil contamination is present on the Property at levels exceeding the Michigan Department of Environmental Quality (MDEQ) Generic Residential Cleanup Criteria developed under Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 P.A. 451, as amended (Part 201).

Phase II ESA activities consisted of a subsurface investigation that included drilling soil borings to evaluate subsurface conditions and to collect soil samples for chemical analysis. Details of the Phase II ESA are described in the following sections:

2.1 Subsurface Investigation

Subsurface investigation activities were conducted on January 6, 2012. Three (3) soil borings, designated as B-1 through B-3, were advanced by LaPointe Environmental under the fulltime observation of NTH. The approximate location of each boring is shown on Figure 2 "Property Layout with Boring Locations" in Appendix A. The rationale for each boring that was drilled for environmental purposes is described below:

Boring Number	Location / Rationale
B-1 and B-2	Eastern portion of the Property to assess for urban fill.
B-3	Western portion of the Property to assess for urban fill.

All the soil borings were advanced with a truck mounted Geoprobe rig and/or a hand auger. Soil borings were drilled to a maximum depth of 12 feet below ground surface (bgs). Subsurface conditions were visually characterized in the field and, when identified, physical indicators of environmental contamination such as staining and odors were documented. The soil cuttings from the borings were also field screened for total volatile organic compounds (VOCs) using a portable Photoionization Detector (PID). There were no PID detections above the detection limit (0.0 parts per million) of the PID. The geologic and observable environmental conditions, including PID readings, encountered during field activities were recorded on Figure 3 "Log of Geoprosbes and Hand Augers" included in Appendix A.

Groundwater was not encountered at any boring location. Discrete soil samples were selected by NTH personnel from the boring locations (based on visual inspection of the soil column) for submittal to the laboratory for analysis. Soil samples collected for laboratory testing have been described later in this report. Upon completion of drilling activities, and after collecting soil samples, the boring holes were backfilled with excess soil cuttings and bentonite chips hydrated with tap water.

2.2 Observed Soil Conditions

Subsurface soil conditions at the Property were assessed through three (3) soil borings (B-1 through B-3). The soils encountered were a mixture of fill materials to a depth of approximately 10.5-12 feet bgs. The fill contained sand and gravel. The fill was underlain by native sandy clay material. Groundwater was not encountered at any boring location. Refer to Figure 3 "Log of Geoprosbes and Hand Augers" in Appendix A for additional details of subsurface soil observations. Physical evidence of environmental contamination (i.e. petroleum staining and/or odors) was not observed in any of the soil borings.

2.3 Soil Laboratory Testing

Soil samples selected for analytical testing were placed in laboratory-supplied containers and stored in a clean cooler packed with ice. These samples were tested for contaminants typical of urban contamination including chemical and paint storage, heating oil, hazardous and or petroleum substance storage and urban fill materials including volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs) and ten Michigan metals. The soil samples submitted for VOCs testing were prepared in the field using Michigan-modified methanol preservation procedures (EPA Method 5035). The samples were transported to Fibertec Environmental Services (Fibertec) in Holt, Michigan. Samples were transported within appropriate holding times and in accordance with NTH's standard chain-of-custody procedures.

Based on field observations, samples were collected and analyzed as summarized in the following table:

Boring Number	Matrix	Sample Testing Rationale	Sample Depth (feet)	VOCs	PNAs	10 MI Metals
B-1	Soil	Fill	3.5	✓	✓	✓
B-2	Soil	Fill	6	✓	✓	✓
B-3	Soil	Fill	6	✓	✓	✓

Analytical results are summarized on Table 1 in Appendix B. The laboratory data report, including quality assurance/quality control (QA/QC) documentation for the samples analyzed during the Phase II ESA study, is presented in Appendix C.

3.0 EVALUATION OF ANALYTICAL DATA

The soil analytical data were compared to the Michigan Department of Environmental Quality (MDEQ) generic residential risk based screening criteria (GRCC). Consistent with Part 201 regulations, detected concentrations of the various metals were only considered to exceed generic cleanup criteria if they also exceeded their respective Statewide Default Background Levels (SDBLs). The soil contaminant concentrations exceeding the MDEQ residential criteria are discussed below. The Part 201 rules provide generic cleanup criteria developed for a number of potential exposure routes and migratory pathways, which include:

- Direct contact with impacted soil (including soil ingestion).
- Inhalation of impacted particulate (soil) and/or volatilized compounds from soil.
- Migration of hazardous substances from soil into drinking water supplies, groundwater or surface water.

Part 201 allows for evaluation of relevant or applicable pathways of exposure or migration by considering geologic and hydrogeologic characteristics, intended site use, and prevailing surface conditions at the impacted sites, as well as future use of the sites. Depending on site-specific factors, certain exposure or migration pathways may be eliminated or determined not to be applicable, and thus, not relevant to assessment of subsurface environmental risk at a site. Based on observed surface and subsurface conditions, and the fact that we don't know the intended future site use, none of the pathways discussed above were eliminated when comparing the soil analytical results.

3.1 Soil Analytical Data

Based on the above-discussed evaluation, the results of the soil analyses were compared to the following Part 201 GRCC:

- Direct contact (including soil ingestion) with impacted soil (DCC).
- Direct contact with groundwater (GCP) impacted by contaminated soil.
- Drinking Water Protection (DWP).
- Groundwater/Surface water Interface Protection (GSIP) criteria for surface water not used as a drinking water source.
- Soil Volatilization to Indoor air Inhalation (SVIIC).
- Volatile Soil Inhalation (VSIC) for ambient air, assuming an "infinite source."
- Particulate Soil Inhalation (PSIC).
- Statewide Default Background Level (SDBL) concentrations, as established by MDEQ.

The soil analytical results for the Property are summarized in Table 1 in Appendix B. The laboratory data report is included in Appendix C.

VOCs and PNAs were not detected in any of analyzed soil samples. Multiple Michigan 10 metals were identified in all of the soil samples but all concentrations were below the Part 201 Generic Residential Cleanup Criteria.

4.0 CONCLUSIONS

The results of the Phase II ESA and laboratory testing confirmed the presence of several metals in the soil but all concentrations were below the Part 201 GRCC for all soil samples.

Based upon the results of the current study, the Property is not considered a "facility" as defined by Part 201 due to the lack of contaminants at levels exceeding Generic Residential Cleanup Criteria. According to Section 1(1)(o) of Part 201, "facility means any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of Section 20120a(1)(a) or (17) or the cleanup criteria for unrestricted residential use under Part 213 has been released, deposited, disposed of, or otherwise comes to be located. Facility does not include any area, place, or property at which response activities have been completed which satisfy the cleanup criteria for the residential category provided for in section 20120a(1)(a) and (17) or at which corrective action has been completed under Part 213 which satisfies cleanup criteria for unrestricted residential use."

5.0 LIMITATIONS

The objective of the Phase II ESA exploration was to evaluate whether soil contamination was present at the Property at levels exceeding the MDEQ's GRCC developed under Part 201. Considering the limited scope of the present exploration, data collection, and testing, our findings should not be construed as absolute certainties, but rather indicative of generalized site conditions within the areas and depths explored during this study. NTH cannot offer any form of warranty or guarantee with respect to the type and extent of hazardous substances on the Property, other than those identified and discussed in this report. This report is intended for the exclusive use of the GR School Lofts, LLC and the City of Grand Rapids. This report presents NTH's opinion of the Property as of this date, based on the results of this study. The results of this study may not be relied upon by parties other than those identified above without the prior knowledge and written consent of NTH.



APPENDIX A

FIGURES

LOG OF GEOPROBES AND HAND AUGERS

PROBE NO.	GROUND SURFACE ELEV.	DEPTH (FT)	SOIL DESCRIPTION	DISCRETE SAMPLE INFO.			
				SAMPLE NO.	DEPTH (FT)		PID READING (PPM)
				FROM	To		
B-1 HAND AUGER		0-0.5 0.5-3.5	TOPSOIL BROWN SILTY SAND AND GRAVEL GROUNDWATER WAS NOT ENCOUNTERED END OF BORING	S-1* (3.5')	0	3.5	0
B-2		0-1.0 1.0-4.0 4.0-12.0	TOPSOIL BROWN TO GRAY SAND AND GRAVEL LIGHT BROWN MEDIUM TO COARSE SAND WITH SOME GRAVEL GROUNDWATER WAS NOT ENCOUNTERED END OF BORING	S-1 S-2 S-3 S-4* (6') S-5 S-6	0 2 4 6 8 10	2 4 6 8 10 12	0 0 0 0 0 0
B-3		0-0.25 0.25-4.0 4.0-9.5 9.5-10.5 10.5-12.0	ASPHALT BROWN SAND AND GRAVEL BROWN MEDIUM SAND WITH TRACE GRAVEL LIGHT BROWN TO GRAY SILTY SAND WITH TRACE GRAVEL BROWN SANDY CLAY WITH TRACE GRAVEL GROUNDWATER WAS NOT ENCOUNTERED END OF BORING	S-1 S-2 S-3 S-4* (6') S-5 S-6	0 2 4 6 8 10	2 4 6 8 10 12	0 0 0 0 0 0

NOTES:

- [1] GEOPROBES BACKFILLED WITH HYDRATED BENTONITE CHIPS AFTER OBTAINING SOIL AND/OR WATER SAMPLES.
- [2] GEOPROBE DRILLING INSPECTED BY AARON LAMMERS OF NTH CONSULTANTS, LTD.
- [3] SOIL CLASSIFICATION BASED SOLELY ON VISUAL OBSERVATION.
- [4] * - SAMPLE SUBMITTED FOR ANALYTICAL TESTING.



Legend

⊕ Soil Boring Location



Google earth
N

Project No.: 74-090095-18

Scale: As Shown

Project Name: Stocking Elementary School

Project Address: 863 Seventh St NW, Grand Rapids, MI

Drawn By: AJL

Checked By: GRJ



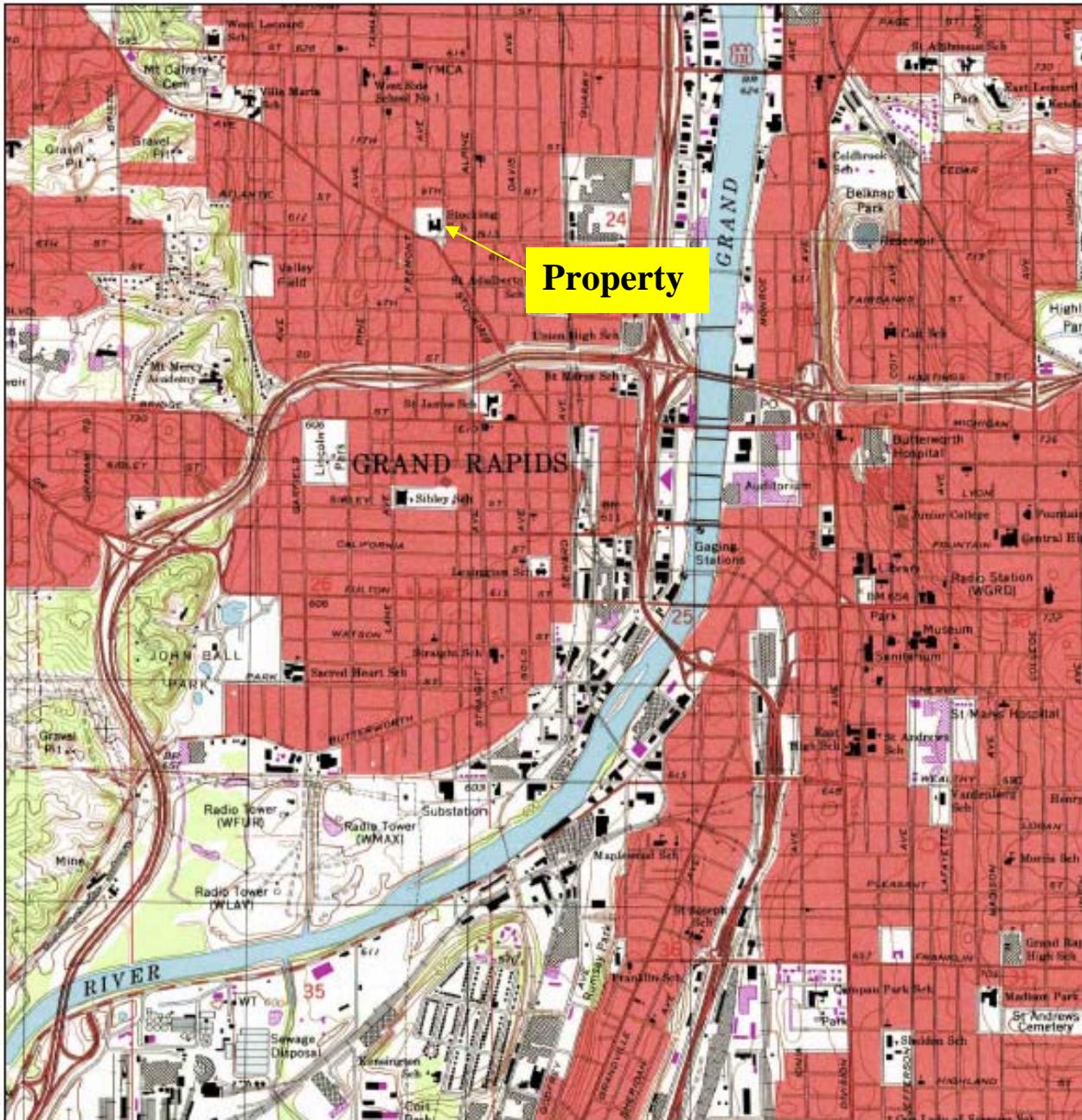
NTH Consultants, Ltd.
Infrastructure Engineering and Environmental Services

Title: Property Layout with Boring Locations

Date: 1-16-2012

Fig No.:

2



N

Source: USGS 1996 Topographic Map

Project No.: 74-090095-19	Project Name: Stocking Elementary School Project Address: 863 Seventh Street NW, Grand Rapids, Michigan	Title: Property Location Map
Scale: 1:24,000		
Drawn By: LMM Checked By: GRJ	NTH Consultants, Ltd. Infrastructure Engineering and Environmental Services	Figure No.: 1



APPENDIX B

TABLES

TABLE No. 1
Summary of Analytical Data
Soil Samples Collected on January 6, 2012
Stocking Elementary School
Grand Rapids, Michigan

SAMPLE ID	B-1	B-1 Dup	B-2	B-3	Part 201 Target Detection Limits (Operational Memo. #2, 10/22/2004)	Part 201 Generic Cleanup Criteria (MDEQ Operational Memorandum No. 1, March 25, 2011)										
Sample Depth (feet below grade)	3.5'	3.5'	6'	6'		Residential				Ambient Air						
Collection Date	01/06/12	01/06/12	01/06/12	01/06/12		Groundwater Protection		Indoor Air	Infinite Source Volatile Soil Inhalation Criteria (VSIC-Infinite)	Finite VSIC for 5 Meter Source Thickness (VSIC-5 Meter)	Finite VSIC for 2 Meter Source Thickness (VSIC-2 Meter)	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation (Csat) Screening Levels		
VOC ANALYTICAL METHOD	5035 / 8260B	5035 / 8260B	5035 / 8260B	5035 / 8260B		Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Groundwater Contact Protection (GCP) Criteria	Soil Volatilization to Indoor Air Inhalation Criteria (SVIC) Criteria	Infinite Source VSIC	5-Meter Source VSIC	2-Meter Source VSIC	PSIC	Direct Contact Criteria	Csat	
VOCs (ug/kg)	CONC.	CONC.	CONC.	CONC.												
All Analyzed VOCs	U	U	U	U	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various		
PNA ANALYTICAL METHOD	3550B/8270C	3550B/8270C	3550B/8270C	3550B/8270C	TDL's	DWP Criteria	GSI Protection Criteria	GCP Criteria	SVIIC	Infinite Source VSIC	5-Meter Source VSIC	2-Meter Source VSIC	PSIC	Direct Contact Criteria	Csat	
PNAs (ug/kg)	CONC.	CONC.	CONC.	CONC.												
All Analyzed PNAs	U	U	U	U	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	Various	
METALS ANALYTICAL METHODS	3050B/6020/7471A	3050B/6020/7471A	3050B/6020/7471A	3050B/6020/7471A	TDL's	DWP Criteria	GSI Protection Criteria	GCP Criteria	SVIIC	Infinite Source VSIC	5-Meter Source VSIC	2-Meter Source VSIC	PSIC	Direct Contact Criteria	Statewide Default Background Levels	
METALS (ug/kg)	CONC.	CONC.	CONC.	CONC.												
Arsenic	3,000	3,500	2,500	2,900	100	4,600	4,600	2,000,000	NLV	NLV	NLV	720,000	7,600	5,800		
Barium	28,000	33,000	12,000	27,000	1,000	1,300,000	790,000 (G,X)	1,000,000,000 (D)	NLV	NLV	NLV	330,000,000	37,000,000	75,000		
Cadmium	270	330	U	92	200	6,000	5,500 (G,X)	230,000,000	NLV	NLV	NLV	1,700,000	550,000	1,200		
Chromium, Total	9,500	10,000	5,800	6,300	2,000	30,000	3,300	140,000,000	NLV	NLV	NLV	260,000	2,500,000	18,000		
Copper	11,000	12,000	9,100	4,000	1,000	5,800,000	120,000 (G)	1,000,000,000 (D)	NLV	NLV	NLV	130,000,000	20,000,000	32,000		
Lead, Total	15,000	18,000	2,300	7,500	1,000	700,000	5,100,000 (G,X)	ID	NLV	NLV	NLV	100,000,000	400,000	21,000		
Mercury	87	U	U	U	50	1,700	50 (M): 1.2	47,000	48,000	52,000	52,000	52,000	20,000,000	160,000	130	
Selenium	U	U	260	U	200	4,000	400	78,000,000	NLV	NLV	NLV	130,000,000	2,600,000	410		
Silver	U	100	U	U	100	4,500	100 (M): 27	200,000,000	NLV	NLV	NLV	6,700,000	2,500,000	1,000		
Zinc	26,000	31,000	11,000	16,000	1,000	2,400,000	270,000 (G)	1,000,000,000 (D)	NLV	NLV	NLV	ID	170,000,000	47,000		
Notes:					Criteria Footnotes											
Only parameters with at least one detection, or a laboratory reporting limit exceeding one or more criteria have been included on this table. Refer to the laboratory data report for a full list of compounds/elements analyzed.					NA = Criteria Not Applicable or Not Available											
CONC. = Concentration					NLV = Not Likely to Volatilize											
U = Parameter not detected above the laboratory reporting limit. Refer to the laboratory data report for additional details, including MDL's achieved by the laboratory.					NLL = Not Likely to Leach											
A shaded cell indicates that one or more of the criterion have been exceeded.					ID = Insufficient Data to formulate criteria (criteria not available)											
A bold number indicates the concentration is higher than the criterion and below the Statewide Default therefore, all results reported on dry weight basis					(C) = The calculated risk-based criterion is greater than the generic soil saturation (Csat) screening level											
NA = Not Available					(D) = Calculated criteria exceeds 100 percent, hence it is reduced to 100 percent or 1.0E-9 parts per billion (ppb)											
					(G) = Criteria is pH and/or water hardness dependent. A hardness value of 265 mg CaCO ₃ /L has been used. Refer to Footnote G in MDEQ Op. Memo. No. 1, Attachment 1, dated December 14, 2011											
					(L) = Criteria for lead are derived using a biologically based model, as allowed for under Section 2012(a)(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.											
					(M) = Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit											
					(X) = GSI criteria is not protective of surface water used as a source of drinking water. Refer to Footnote X in MDEQ Operational Memorandum No. 1, Attachment 1, dated June 27, 2005											
					Refer to MDEQ Operational Memorandum No. 1, Attachment 1 for additional chemical and criteria information.											



APPENDIX C

ANALYTICAL DATA REPORTS

Friday, January 13, 2012

Fibertec Project Number: 48135
Project Identification: Stockton Elementary School /74-090095-18
Submittal Date: 01/09/2012

Mr. Garnet Johnson
NTH Consultants, Ltd. - Grand Rapids
1430 Monroe Ave NW
Suite 180
Grand Rapids, MI 49505

Dear Mr. Johnson,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,



Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

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F: (231) 775-8584

Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-3 (6')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-3 (6')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:09

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 48135-001A	Matrix: Soil/Solid	Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	6.0		%	0.1	1.0	01/10/12	MC120110	01/11/12	MC120110

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 48135-001A	Matrix: Soil/Solid	Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	2900		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
2. Barium	27000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
3. Cadmium	92		µg/kg	50	20	01/12/12	PT12A12C	01/12/12	T212A12A
4. Chromium	6300		µg/kg	500	20	01/12/12	PT12A12C	01/12/12	T212A12A
5. Copper	4000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
6. Lead	7500		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
7. Selenium	U		µg/kg	200	20	01/12/12	PT12A12C	01/12/12	T212A12A
8. Silver	U		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
9. Zinc	16000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 48135-001A	Matrix: Soil/Solid	Analyst: JLP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	01/10/12	PM12A10B	01/11/12	M612A11A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 48135-001	Matrix: Soil/Solid	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	01/12/12	V912A12B	01/12/12	V912A12B
2. Acrylonitrile	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
3. Benzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
4. Bromobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
5. Bromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
6. Bromodichloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
7. Bromoform	U		µg/kg	110	1.0	01/12/12	V912A12B	01/12/12	V912A12B
8. Bromomethane	U		µg/kg	200	1.0	01/12/12	V912A12B	01/12/12	V912A12B
9. 2-Butanone	U		µg/kg	750	1.0	01/12/12	V912A12B	01/12/12	V912A12B
10. n-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
11. sec-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
12. tert-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
13. Carbon Disulfide	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
14. Carbon Tetrachloride	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
15. Chlorobenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
16. Chloroethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
17. Chloroform	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-3 (6')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-3 (6')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:09

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-001		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
18. Chloromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
20. Dibromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	10	1.0	01/12/12	V912A12B	01/12/12	V912A12B
22. Dibromomethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
35. Ethylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
36. Ethylene Dibromide	U		µg/kg	20	1.0	01/12/12	V912A12B	01/12/12	V912A12B
37. 2-Hexanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/12/12	V912A12B
38. Isopropylbenzene	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
39. Methyl Iodide	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
40. Methylene Chloride	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/12/12	V912A12B
42. MTBE	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
43. Naphthalene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/12/12	V912A12B
44. n-Propylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
45. Styrene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
48. Tetrachloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
49. Toluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/12/12	V912A12B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
53. Trichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
54. Trichlorofluoromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-3 (6')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-3 (6')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:09
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.					

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-001		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
59. Vinyl Chloride	U		µg/kg	40	1.0	01/12/12	V912A12B	01/12/12	V912A12B
60. Xylenes	U		µg/kg	150	1.0	01/12/12	V912A12B	01/12/12	V912A12B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)				Aliquot ID: 48135-001A		Matrix: Soil/Solid	Analyst: HLS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
2. Acenaphthylene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
3. Anthracene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
9. Chrysene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
11. Fluoranthene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
12. Fluorene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
15. Phenanthrene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A
16. Pyrene (SIM)	U		µg/kg	330	20	01/12/12	PS12A12B	01/12/12	S612A12A

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-1 (3.5')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-1 (3.5')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:45

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 48135-002A	Matrix: Soil/Solid	Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	7.9		%	0.1	1.0	01/10/12	MC120110	01/11/12	MC120110

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 48135-002A	Matrix: Soil/Solid	Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	3000		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
2. Barium	28000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
3. Cadmium	270		µg/kg	50	20	01/12/12	PT12A12C	01/12/12	T212A12A
4. Chromium	9500		µg/kg	500	20	01/12/12	PT12A12C	01/12/12	T212A12A
5. Copper	11000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
6. Lead	15000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
7. Selenium	U		µg/kg	200	20	01/12/12	PT12A12C	01/12/12	T212A12A
8. Silver	U		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
9. Zinc	26000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 48135-002A	Matrix: Soil/Solid	Analyst: JLP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	87		µg/kg	50	10	01/10/12	PM12A10B	01/11/12	M612A11A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 48135-002	Matrix: Soil/Solid	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	01/12/12	V912A12B	01/12/12	V912A12B
2. Acrylonitrile	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
3. Benzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
4. Bromobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
5. Bromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
6. Bromodichloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
7. Bromoform	U		µg/kg	110	1.0	01/12/12	V912A12B	01/12/12	V912A12B
8. Bromomethane	U		µg/kg	200	1.0	01/12/12	V912A12B	01/12/12	V912A12B
9. 2-Butanone	U		µg/kg	750	1.0	01/12/12	V912A12B	01/12/12	V912A12B
10. n-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
11. sec-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
12. tert-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
13. Carbon Disulfide	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
14. Carbon Tetrachloride	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
15. Chlorobenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
16. Chloroethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
17. Chloroform	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-1 (3.5')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-1 (3.5')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:45

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-002		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
18. Chloromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
20. Dibromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	10	1.0	01/12/12	V912A12B	01/12/12	V912A12B
22. Dibromomethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
35. Ethylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
36. Ethylene Dibromide	U		µg/kg	20	1.0	01/12/12	V912A12B	01/12/12	V912A12B
37. 2-Hexanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/12/12	V912A12B
38. Isopropylbenzene	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
39. Methyl Iodide	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
40. Methylene Chloride	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/12/12	V912A12B
42. MTBE	U		µg/kg	250	1.0	01/12/12	V912A12B	01/12/12	V912A12B
43. Naphthalene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/12/12	V912A12B
44. n-Propylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
45. Styrene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
48. Tetrachloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
49. Toluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/12/12	V912A12B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
53. Trichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/12/12	V912A12B
54. Trichlorofluoromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-1 (3.5')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-1 (3.5')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:45
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.					

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-002		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/12/12	V912A12B
59. Vinyl Chloride	U		µg/kg	40	1.0	01/12/12	V912A12B	01/12/12	V912A12B
60. Xylenes	U		µg/kg	150	1.0	01/12/12	V912A12B	01/12/12	V912A12B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)				Aliquot ID: 48135-002A		Matrix: Soil/Solid	Analyst: HLS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
2. Acenaphthylene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
3. Anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
9. Chrysene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
11. Fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
12. Fluorene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
15. Phenanthrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
16. Pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-1 DUP (3.5')		Chain of Custody:	110435	
Client Project Name:	Stockton Elementary School	Sample No:	B-1 DUP (3.5')		Collect Date:	01/06/12	
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid		Collect Time:	13:50	

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)				Aliquot ID: 48135-003A		Matrix: Soil/Solid	Analyst: BMG		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	3.8		%	0.1	1.0	01/10/12	MC120110	01/11/12	MC120110

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)				Aliquot ID: 48135-003A		Matrix: Soil/Solid	Analyst: JLH		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	3500		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
2. Barium	33000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
3. Cadmium	330		µg/kg	50	20	01/12/12	PT12A12C	01/12/12	T212A12A
4. Chromium	10000		µg/kg	500	20	01/12/12	PT12A12C	01/12/12	T212A12A
5. Copper	12000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
6. Lead	18000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
7. Selenium	U		µg/kg	200	20	01/12/12	PT12A12C	01/12/12	T212A12A
8. Silver	100		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
9. Zinc	31000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A

Mercury by CVAAS (EPA 7471B)				Aliquot ID: 48135-003A		Matrix: Soil/Solid	Analyst: JLP		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	01/10/12	PM12A10B	01/11/12	M612A11A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-003		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	01/12/12	V912A12B	01/13/12	V912A12B
2. Acrylonitrile	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
3. Benzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
4. Bromobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
5. Bromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
6. Bromodichloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
7. Bromoform	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
8. Bromomethane	U		µg/kg	200	1.0	01/12/12	V912A12B	01/13/12	V912A12B
9. 2-Butanone	U		µg/kg	750	1.0	01/12/12	V912A12B	01/13/12	V912A12B
10. n-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
11. sec-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
12. tert-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
13. Carbon Disulfide	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
14. Carbon Tetrachloride	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
15. Chlorobenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
16. Chloroethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
17. Chloroform	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-1 DUP (3.5')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-1 DUP (3.5')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:50

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-003		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
18. Chloromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
20. Dibromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	10	1.0	01/12/12	V912A12B	01/13/12	V912A12B
22. Dibromomethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
35. Ethylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
36. Ethylene Dibromide	U		µg/kg	20	1.0	01/12/12	V912A12B	01/13/12	V912A12B
37. 2-Hexanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/13/12	V912A12B
38. Isopropylbenzene	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
39. Methyl Iodide	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
40. Methylene Chloride	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/13/12	V912A12B
42. MTBE	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
43. Naphthalene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/13/12	V912A12B
44. n-Propylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
45. Styrene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
48. Tetrachloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
49. Toluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/13/12	V912A12B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
53. Trichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
54. Trichlorofluoromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-1 DUP (3.5')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-1 DUP (3.5')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:50
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.					

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-003		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
59. Vinyl Chloride	U		µg/kg	40	1.0	01/12/12	V912A12B	01/13/12	V912A12B
60. Xylenes	U		µg/kg	150	1.0	01/12/12	V912A12B	01/13/12	V912A12B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)				Aliquot ID: 48135-003A		Matrix: Soil/Solid	Analyst: HLS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
2. Acenaphthylene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
3. Anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
9. Chrysene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
11. Fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
12. Fluorene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
15. Phenanthrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
16. Pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-2 (6')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-2 (6')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:35

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 48135-004A	Matrix: Soil/Solid	Analyst: BMG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	3.6		%	0.1	1.0	01/10/12	MC120110	01/11/12	MC120110

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 48135-004A	Matrix: Soil/Solid	Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	2500		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
2. Barium	12000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
3. Cadmium	U		µg/kg	50	20	01/12/12	PT12A12C	01/12/12	T212A12A
4. Chromium	5800		µg/kg	500	20	01/12/12	PT12A12C	01/12/12	T212A12A
5. Copper	9100		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
6. Lead	2300		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A
7. Selenium	260		µg/kg	200	20	01/12/12	PT12A12C	01/12/12	T212A12A
8. Silver	U		µg/kg	100	20	01/12/12	PT12A12C	01/12/12	T212A12A
9. Zinc	11000		µg/kg	1000	20	01/12/12	PT12A12C	01/12/12	T212A12A

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 48135-004A	Matrix: Soil/Solid	Analyst: JLP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	01/10/12	PM12A10B	01/11/12	M612A11A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 48135-004	Matrix: Soil/Solid	Analyst: JAS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	01/12/12	V912A12B	01/13/12	V912A12B
2. Acrylonitrile	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
3. Benzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
4. Bromobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
5. Bromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
6. Bromodichloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
7. Bromoform	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
8. Bromomethane	U		µg/kg	200	1.0	01/12/12	V912A12B	01/13/12	V912A12B
9. 2-Butanone	U		µg/kg	750	1.0	01/12/12	V912A12B	01/13/12	V912A12B
10. n-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
11. sec-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
12. tert-Butylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
13. Carbon Disulfide	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
14. Carbon Tetrachloride	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
15. Chlorobenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
16. Chloroethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
17. Chloroform	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B

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Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-2 (6')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-2 (6')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:35

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-004		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
18. Chloromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
19. 2-Chlorotoluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
20. Dibromochloromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
21. 1,2-Dibromo-3-chloropropane (NN)	U		µg/kg	10	1.0	01/12/12	V912A12B	01/13/12	V912A12B
22. Dibromomethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
35. Ethylbenzene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
36. Ethylene Dibromide	U		µg/kg	20	1.0	01/12/12	V912A12B	01/13/12	V912A12B
37. 2-Hexanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/13/12	V912A12B
38. Isopropylbenzene	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
39. Methyl Iodide	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
40. Methylene Chloride	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	01/12/12	V912A12B	01/13/12	V912A12B
42. MTBE	U		µg/kg	250	1.0	01/12/12	V912A12B	01/13/12	V912A12B
43. Naphthalene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/13/12	V912A12B
44. n-Propylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
45. Styrene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
48. Tetrachloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
49. Toluene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	01/12/12	V912A12B	01/13/12	V912A12B
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
53. Trichloroethene	U		µg/kg	50	1.0	01/12/12	V912A12B	01/13/12	V912A12B
54. Trichlorofluoromethane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B

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F: (231) 775-8584

Client Identification:	NTH Consultants, Ltd. - Grand Rapids	Sample Description:	B-2 (6')	Chain of Custody:	110435
Client Project Name:	Stockton Elementary School	Sample No:	B-2 (6')	Collect Date:	01/06/12
Client Project No:	74-090095-18	Sample Matrix:	Soil/Solid	Collect Time:	13:35
Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.					
Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.					

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)				Aliquot ID: 48135-004		Matrix: Soil/Solid	Analyst: JAS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	01/12/12	V912A12B	01/13/12	V912A12B
59. Vinyl Chloride	U		µg/kg	40	1.0	01/12/12	V912A12B	01/13/12	V912A12B
60. Xylenes	U		µg/kg	150	1.0	01/12/12	V912A12B	01/13/12	V912A12B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)				Aliquot ID: 48135-004A		Matrix: Soil/Solid	Analyst: HLS		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
2. Acenaphthylene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
3. Anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
9. Chrysene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
11. Fluoranthene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
12. Fluorene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
15. Phenanthrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A
16. Pyrene (SIM)	U		µg/kg	330	1.0	01/12/12	PS12A12B	01/12/12	S612A12A

1914 Holloway Drive 11766 E. Grand River 8660 S. Mackinaw Trail	Holt, MI 48842 Brighton, MI 48116 Cadillac, MI 49601	T: (517) 699-0345 T: (810) 220-3300 T: (231) 775-8368	F: (517) 699-0388 F: (810) 220-3311 F: (231) 775-8584
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Definitions/ Qualifiers:

- A: Spike recovery or precision unusable due to dilution.
- B: The analyte was detected in the associated method blank.
- E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J: The concentration is an estimated value.
- M: Modified Method
- U: The analyte was not detected at or above the reporting limit.
- X: Matrix Interference has resulted in a raised reporting limit or distorted result.
- W: Results reported on a wet-weight basis.
- *: Value reported is outside QA limits

Exception Summary:



Accreditation Number:

E-10395

1914 Holloway Drive
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Fibertec
environmental
services

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Geoprobe
11766 E Grand River
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Chain of Custody #
110435

PAGE 1 of 1

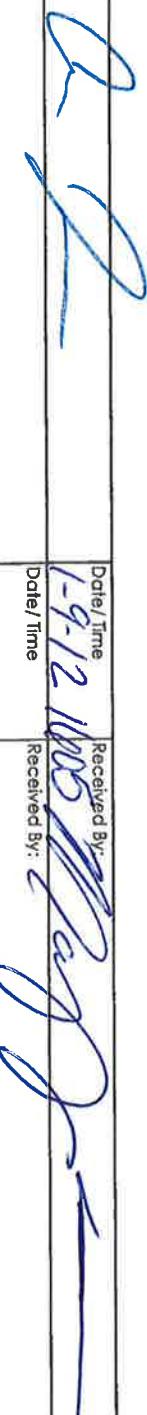
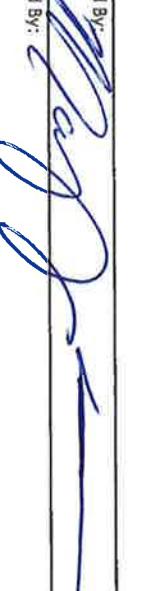
Client Name:	UTK Consultants			
Contact Person:	Garnet Johnson			
Project Name/ Number:	Stockton Elementary School			
74-090095-18				

PARAMETERS					Turnaround	Matrix Code
Sample #	Date	Time	Client Sample Descriptor	Client Sample Descriptor	24 hour RUSH (surcharge applies)	S Soil
					48 hour RUSH (surcharge applies)	GW Ground Water
					72 hour RUSH (surcharge applies)	W Water SW Surface Water
					A Air	WW Waste Water
					<input checked="" type="checkbox"/> Standard (5-7 bus days)	<input type="radio"/> Oil
					<input type="checkbox"/> Other: Specify _____	<input checked="" type="checkbox"/> Other: Specify _____
					Remarks:	

MATRIX (SEE RIGHT CORNER FOR CODE)
OF CONTAINERS
PRESERVED (Y/N)

8260 - VOCs	8270 - PNAS	MI 10 Metals
S 2 Y X X X	S 2 Y X X X	S 2 Y X X X

Comments:

Relinquished By:		
Date/ Time	Received By:	Received By:
1-9-12 1105		
Reinquished By:		
Date/ Time	Received By Laboratory:	
Reinquished By:		
Date/ Time		

LAB USE ONLY
Fibertec project number:
Laboratory Tracking#:
Temperature at Receipt: 21.4

TERMS & CONDITIONS ON BACK

COC Revision: April, 2006